

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A digital clock manager having a reference input terminal, a skew input terminal, an output terminal, and a frequency adjusted output terminal, the digital clock manager comprising:

 a delay lock loop (DLL) coupled to the reference input terminal, the skew input terminal, and the output terminal, wherein the delay lock loop generates an output clock signal at the output terminal;

 wherein the delay lock loop comprises a DLL output circuit having a DLL output delay; and

 a digital frequency synthesizer (DFS), having a variable oscillator, coupled to receive a clock signal generated by the delay lock loop and the frequency adjusted output terminal, wherein the digital frequency synthesizer generates a frequency adjusted clock signal at the frequency adjusted output terminal.

2. (Previously Presented) The digital clock manager of Claim 1, wherein the delay lock loop synchronizes a reference clock signal on the reference input terminal with a skewed clock signal on the skew input terminal.

3. (Currently Amended) The digital clock manager of Claim 1, A digital clock manager having a reference input terminal, a skew input terminal, an output terminal, and a frequency adjusted output terminal, the digital clock manager comprising:

a delay lock loop (DLL) coupled to the reference input terminal, the skew input terminal, and the output terminal, wherein the delay lock loop generates an output clock signal at the output terminal;

wherein the delay lock loop comprises a DLL output circuit having a DLL output delay; and

a digital frequency synthesizer (DFS), having a variable oscillator, coupled to the delay lock loop and the frequency adjusted output terminal, wherein the digital

frequency synthesizer generates a frequency adjusted clock signal at the frequency adjusted output terminal and wherein the frequency adjusted clock signal is synchronized with the output clock signal during concurrences.

Claim 4. (Cancelled)

5. (Currently Amended) The digital clock manager of Claim [[4]] 1, wherein the digital frequency synthesizer comprises a DFS output circuit having a DFS output delay.

6. (Original) The digital clock manager of Claim 5, wherein the DLL output delay is substantially equal to the DFS output delay.

7. (Original) The digital clock manager of Claim 5, wherein the DLL output circuit comprises a plurality of components and the DFS output circuit comprises the same plurality of components.

Claim 8. (Cancelled)

9. (Previously Presented) The digital clock manager of Claim 23, wherein the delay lock loop is configured to generate an output clock signal on the output terminal, wherein the output clock signal lags the synchronizing clock signal by a DLL output delay.

10. (Previously Presented) The digital clock manager of Claim 9, wherein an active edge of the frequency adjusted clock signal lags an active edge of the synchronizing clock signal by a DFS output delay during a concurrence period.

11. (Original) The digital clock manager of Claim 10, wherein the DLL output delay is substantially equal to the DFS output delay.

12. (Original) The digital clock manager of Claim 1, further comprising a variable delay circuit coupled between the delay lock loop and the output terminal.

13. (Original) The digital clock manager of Claim 1, further comprising a variable delay circuit coupled between the digital frequency synthesizer and the frequency adjusted output terminal.

14. (Currently Amended) ~~The digital clock manager of Claim 1, further comprising A digital clock manager having a reference input terminal, a skew input terminal, an output terminal, and a frequency adjusted output terminal, the digital clock manager comprising:~~

a delay lock loop (DLL) coupled to the reference input terminal, the skew input terminal, and the output terminal, wherein the delay lock loop generates an output clock signal at the output terminal;

wherein the delay lock loop comprises a DLL output circuit having a DLL output delay;

~~a multiplexer having a first input terminal coupled to the reference input terminal, a second input terminal coupled to the delay lock loop, and an output terminal coupled to the digital frequency synthesizer; and~~

a digital frequency synthesizer (DFS), having a variable oscillator, coupled to the output terminal of the multiplexer and the frequency adjusted output terminal,
wherein the digital frequency synthesizer generates a frequency adjusted clock signal at the frequency adjusted output terminal.

15. (Previously Presented) The digital clock manager of Claim 14, wherein the delay lock loop is configured to provide a synchronizing clock signal to the second input terminal of the multiplexer.

16. (Original) The digital clock manager of Claim 15, wherein the digital frequency synthesizer is configured to perform a frequency search phase using a reference clock signal provided to the reference input terminal.

17. (Original) The digital clock manager of Claim 16, wherein the digital frequency synthesizer is configured to provide a frequency adjusted clock signal based on the synchronizing clock signal.

18. (Original) The digital clock manager of Claim 1, wherein the digital frequency synthesizer performs a frequency search while the delay lock loop is performing lock acquisition.

Claims 19 -22. (Cancelled)

23. (Currently Amended) A digital clock manager having a reference input terminal, a skew input terminal, an output terminal, and a frequency adjusted output terminal, the digital clock manager comprising:

a delay lock loop (DLL) coupled to the reference input terminal, the skew input terminal, and the output terminal, wherein the delay lock loop generates an output clock signal at the output terminal;

a digital frequency synthesizer (DFS), having a variable oscillator, coupled to the delay lock loop and the frequency adjusted output terminal, wherein the digital frequency synthesizer generates a frequency adjusted clock signal at the frequency adjusted output terminal; and

wherein the delay lock loop drives a synchronizing clock signal to the digital frequency synthesizer.